

LABORATORY MOISTURE - DENSITY RELATIONSHIP

DOTD TR 418 - Methods A & B

(English)

PROJECT NO: _____ DATE: _____ LAB NO: _____

TYPE ADDITIVE: _____ TYPE SOIL: _____ SAMPLE NO: _____

TESTED BY: _____ CHECKED BY: _____

*MAX. DRY DENSITY OF SOIL (___ TR 418-A, ___ TR 415-A), lb/ft ³	A		
*REQUIRED % BY VOL. OF ADDITIVE (___ TR 432-A, ___ TR 432-B, ___ TR 416, ___ specified)	B		
*% WT. OF ADDITIVE (___ chart, ___ formula)	C		
DRY WT. OF SOIL (Representative portion), lb	D		
*WT. OF ADDITIVE TO BE ADDED, lb	E	(C x D) + 100	
*TOTAL DRY WT. OF SOIL AND ADDITIVE, lb	F	D + E	

*** FOR USE WITH DOTD TR 418, METHOD B ONLY.**

CURVE POINT NO.	***		1	2	3	4	5	6
MOISTURE CUP NO.	***							
WATER ADDED, mL	G	See Calculations						
WT. MOLD, BASE (if appl.) & WET SOIL, lb	H							
WT. MOLD & BASE (if applicable), lb	I							
WT. WET COMPACTED SOIL, lb	J	H - I						
WT. OF CUP & WET SOIL, g	K							
WT. OF CUP & DRY SOIL, g	L							
WT. OF WATER, g	WW	K - L						
WT. OF CUP & DRY SOIL, g	L							
WT. OF CUP, g	M							
WT. OF DRY SOIL, g	DW	L - M						
WET DENSITY, lb/ft ³	WWD	J x 30						
MOISTURE CONTENT, %	MC	(WW/DW) x 100						
DRY DENSITY, lb/ft ³	DWD	$\frac{WWD}{100 + MC} \times 100$						

REMARKS: _____
